Mission Bay Landfill
Technical Advisory Committee
City Administration Building
12th Floor Conference Room B
January 21, 2005
10:00 to 12:00

Meeting Minutes

TAC Members Present

Donna Frye	Rebecca Lafreniere	Dave Huntley Ph.D.
Frank Gormlie	Robert Curtis	Barry Pulver
Jeoffry Gordon	Judy Swink	Brain McDaniel
David Kennedy, DDS		

TAC Members Absent

Bruce Reznik	Robert Tukey Ph.D.	Ben Leaf
John Wilks		

Interested Parties/Alternates

Scott Andrews	Jace Miller	Patrick Owen
Kathleen Blavatt	George Murphy	Tessa McRae
Corrine Brindley	Diana Buchanan	Hiram Sarabia
Susan Orlofsky	John Fields	Jeff Green
Stephen McNew	Kirk Ferst	

Staff

Chris Gonaver	Steven Fontana	Beth Murray
Ray Purtee	Sylvia Castillo	George Morton Jr.
John Lamb		

The meeting was called to order by Councilmember Frye. Self introductions were made. A quorum was present.

Approval of Minutes

The November meeting minutes were reviewed and approved with one change to page 2: delete the sentence "Also, the 25 hour moving average tidal survey data doesn't show large fluctuations in the wells due to tidal influence."

Status of Site Assessment

Tessa McRae explained that data collected from the field sampling is in the process of being evaluated for drafting the final report. She shared with the group some of this data by passing around tables entitled "Drive points #1-4," "GW Sample Results of Monitoring Wells," and

"Concentration of Metals in GW Samples." Metals concentrations are compared to Ocean Plan numbers in the table and no semi-volatile organic compounds or hexavalent chromium was detected.

She then explained that two of four planned drive points were relocated from the original work plan locations. This was agreed to beforehand by the subcommittee. Drive points are hollow metal rods with a metal screen at the bottom. Once driven into bay mud, the screen allows liquid to flow into the rod from which a sample can be extracted. The two drive points installed in the boat launch basin were successful, but the two that were to be driven in the Eastern part of the bay near the landfill were either stopped by rip rap or no liquids were given up by the mud. So these two drive points were moved to the river side of the landfill and driven into the river bottom mud- one in the location of the old river channel that used to flow north, and one near the east groundwater monitoring well. Water levels within the drive point rods responded to the storm events and appear to confirm groundwater flow from the River to the Bay.

Transducers were placed within groundwater wells for 32 days to measure tidal influence, and unexpectedly, the October storm event. She showed the group a chart of pressure gradients measured from within a groundwater monitoring well. This well showed a barometric pressure variation of 0.55"Hg as shown on the chart's peak to valley curve. As 1"Hg equals about 13.5" water column, this would correspond to a water level variation of about 7.5 inches. Water levels in wells along the river showed two peaks during the monitoring period- these were in response to the storm events. The well with the greatest variation as mentioned above was the center well along the river[MBE 6].

A question was asked "Were transducers barometrically corrected or absolute?
Tessa replied that she would check. Another question asked was "Did the tides affect the wells?" Tessa replied that different wells were affected differently by the tides. Some showed more effect, others, less.

Concerning the storm event, those wells along the river showed an immediate effect, while wells to the Northeast showed a delayed response. To summarize, the area along the river was affected by the storm with rising water levels and a pulse of water moved thru the site to the Northeast with less effect to the Northwest.

Tessa notified the group that Dr. Paul Damian of SCS would like to speak at the next meeting on the risk assessment.

A question was asked "Are there any toxics revealed in the raw data that should lead to posting the area to keep out the public?" Tessa replied that she's not a public health official, but there was nothing that jumped out at her. A follow up question was "Was there any result that exceeded a health standard?" Tessa replied that she's not certain, and that the exposure pathway would have to be defined.

A question was asked "What is the quality assurance (QA) of the collection of this data? There should be a QA plan in the report." Tessa answered that SCS considered the uses of the data, the methods for collection of samples, quality objectives, and the use of in-house Standard Operating Procedures (SOP's) for field work, but the budget didn't allow for preparation of a QA plan. Monies in the project were guided toward field sample collection and SCS doesn't normally prepare a separate QA document. There will be quality assurance documentation within the final

report. Remarks were made supporting the caliber of SCS's work and suggesting that SCS bring in some SOP's to share with the group.

A question was asked "There appears to be some elevated levels of arsenic and zinc in the groundwater; what standard can these levels be compared to? Are there background levels of these constituents present? Tessa answered that certainly for arsenic there are naturally occurring levels present in soils, but she would have to check for zinc. A further suggestion was made that the final report have some reference standards in it, for example ocean water standards or drinking water standards so that constituent levels discovered at the site can be compared to some reference. Another suggestion was to use Public Health Goals as the reference standard.

A suggestion was made to SCS to highlight charts of constituents with different colors in order to make reading across the charts easier.

Tessa handed out a memorandum by Dr. Paul Damian on risk assessment assumptions for everyone to review before the next TAC meeting. If anyone has specific comments she would appreciate receiving them by next Friday via email. Ray Purtee will see that Dr. Tukey receives a copy.

Dr. Gordon handed out two articles entitled "Risk Assessment at the EPA, An Agency Self Exam" and "Pesticide Testing in Humans: Ethics and Public Policy." He encouraged the group to read these articles and become familiar with the practice of risk management of toxic substances and those industries that benefit from these practices.

Review of Groundwater Monitoring Program Results

Ray Purtee explained that ESD uses a consultant to analyze data and prepare reports on the landfill in accordance with Waste Discharge Requirements issued by the RWQCB for the Mission Bay landfill. That consultant is Diana Buchanan of Shaw/EMCON and Diana spoke on the City's Mission Bay Landfill Water Quality Monitoring program.

Diana started off by summarizing the program's results: The detection monitoring program (DMP), which is looking for a release from the landfill, is in place for all wells except #4, which is the Corrective Action Plan(CAP) well. Very low concentrations of volatile organic compounds (VOC's) have been found in well #4, but there are no increasing trends. This well is southwest of the boat launch dock.

Some VOC's related to fuels have been detected in other wells, such as MTBE, diethyl ether, benzene, and toluene, and these could be attributed to fuel use, parking lot spills, or surface water contamination from jet skis and power boats. Some common laboratory contaminants have shown up in field and trip blanks such as methylene chloride, acetone, and toluene. Since the levels discovered are in such low concentrations and present in the quality control blanks, they are not related to a landfill release and probably are the result of lab contamination.

Though well #4 appears slightly impacted, other wells at the site do not indicate a release. Statistical analyses are performed on the data to look for increasing trends and the results do not indicate a release.

A question was asked "Iron and molybdenum were historically high in CAP well #4? Can you speak on these?" Diana answered that naturally occurring concentrations can be expected to fluctuate. The iron concentration is not unusual for the site- other wells had higher levels.
A question was asked "Did you use a background level well to compare to?" Diana answered that per State regulations, site data is only compared to site data, not to a "background." Statistical analysis is performed using the well data to look for something significant. She checks the data for levels that would be alarming.

A question was asked "Objectively, how do you decide a level is 'high' or 'not high?'" Diana answered that comparison is made to previous results, not to a regulatory standard like PHG's, drinking water standards, etc. "High" is 'high" compared to previous results to answer the question "Is the landfill impacting the groundwater?" This is in accordance with the Waste Discharge Requirements for the landfill.

Questions asked included "If groundwater results were applied to surface water standards would groundwater meet the standards?" and "Can you comment on Tessa's arsenic results that have just been passed around?" Diana answered that some comparison work among the differing tables would have to be done to compare results. A motion was made and approved to have SCS compare Shaw/EMCON's groundwater data and sampling methods to SCS's results and methods.

Questions asked included "What does the RWQCB do when toxic constituents are discovered in surface water?" and "There is no warning of high toxic levels?" and "What are the standards used to compare surface water too?" Brian McDaniel answered that the standard would be "The Water Quality Control Plan for the San Diego Basin" and that his group is the land discharge unit and another group within the RWQCB would respond to surface water pollution. Chris Gonaver stated that he is not aware of recent surface water testing that showed high levels exceeding public health standards. Councilmember Frye stated that different standards exist for different exposures; for example one standard might say the water is not drinkable, another standard might concern swimming in the water, and yet another might say don't eat more than three fish per week from these waters. So it might be O.K. to swim but not O.K to ingest water or fish. Councilmember Frye closed the discussion by saying that we could have a future agenda item to discuss water quality posting and the differing standards used.

Review of RWQCB Compliance Inspection

Brian explained that this was a routine inspection of the landfill citing ponding of water. The RWQCB was satisfied with Sea World's response letter.

Water Fluoridation Chemicals

Dr. Kennedy spoke on drinking water fluoridation and passed around a handout entitled "Drinking Water Fluoridation is Neither Safe or Effective." After his talk Councilmember Frye suggested that if there was enough interest a subcommittee could be formed on this topic, though it may not be related to the landfill.

Water Quality Purity Act

Jeff Green, the national director for Safe Drinking Water spoke on what his organization does and that his organization is opposed to fluoridation of drinking water.

Review of Draft Responses to OEHHA Letter

As no one had their own draft response to the Nov 17, 2004, OEHHA letter, a motion was made and approved to have the subcommittee consisting of Barry Pulver and Dr. Huntley comment on SCS's draft response and work with SCS and the City to issue a response letter.

Public Comment

Comment was made that swimming in the ocean can lead to staff infections and/or catching viruses. Councilmember Frye reminded the group that people must report any illnesses from ocean swimming so that they can be tracked. Clay Clifton of the County Environmental Health Department maintains a web site with an online survey form that can be filled out to report such illnesses. There's also a 24 hour hotline that can be called to learn which beaches are polluted and posted "No Swimming."

A letter from the Mission Bay Park Toxic Cleanup group concerning thallium was passed around. It was addressed to the RWQCB. The group was reminded that a presentation on thallium by TAC members was made to the TAC about one year ago.

Councilmember Frye stated that the next meeting will focus on risk assessment and what standards are used to evaluate risks.

Items for next agenda

• Risk Assessment by Dr. Paul Damian of SCS

Future Meetings

City Administration Building, 12th Floor Conference Room B, 10:00am – 12:00pm

- Friday, February 18, 2005
- Friday, March 18, 2005
- Friday, April 15, 2005
- Friday, May 20, 2005
- Friday, June 17, 2005